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10/040,150	01/02/2002	Karl E. Elliott	017289-0311760	1139
909 7590 02/27/2007 PILLSBURY WINTHROP SHAW PITTMAN, LLP P.O. BOX 10500 MCLEAN, VA 22102			EXAMINER TRAN, NGHI V	
			ART UNIT 2151	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/040,150

Applicant(s)

ELLIOTT ET AL.

Examiner

Nghi V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 66-138 is/are pending in the application.
- 4a) Of the above claim(s) 66-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 82-138 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This office action is in response to the Pre-Brief Appeal Conference decision mailed on December 04, 2006. The previous office action has been withdrawn. Claims 94, 127, and 133 have been amended. Claims 1-65 have been canceled. Claims 66-81 have been withdrawn. Therefore, claims 82-138 are presented for further examination.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 82, 83, 85-87, 89-94, 105-106, 107-113 and 125-126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas, United States Patent Number 6,304,556 (hereinafter Haas) in view of Sato, United States Patent Application Publication Number 2002/0012358 (hereinafter Sato).

4. With respect to claims 82, 86-87, 89-90, 94, 105, 107, 109-113, and 125, Haas teaches a self-configuring wireless network [i.e. wireless ad-hoc networks and/or other self-reconfigurable networks, col.9, ln.65 through col.10, ln.7], comprising:

- (i) a network cluster [i.e. network clusters **24**, **26**, **28**, and/or **30**], comprising:
- a first sub-network [i.e. network cluster **24**] including at least one self-configuring virtual node [i.e. network nodes **22**] [col.5, lns.36-63];
  - a second sub-network [i.e. network cluster **26**] including at least one self-configuring virtual node [i.e. network nodes **22**] [col.5, lns.36-63],
  - wherein the first and second sub-networks are communicatively coupled to each other via a wireless communication link [i.e. ad-hoc network] between the respective at least one self-configuring virtual nodes [col.8, ln.21 through col.9, ln.63 and figs.3-4].

However, Haas does not explicitly show (ii) a virtual gate being communicatively coupled to the first and/or second sub-networks and configured to provide a communication access point between the network cluster and at least one external network.

In an ad hoc networking, Sato discloses or suggests a virtual gate [i.e. virtual proxy node] being communicatively coupled to the first and/or second sub-networks and configured to provide a communication access point between the network cluster and at least one external network [paragraphs 0032-0047].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato by being communicatively coupled to the first and/or second sub-networks via a virtual gate because this feature is easily adapted to changes in the types of non-standardized and standardized nodes with which each virtual network is to communicate [Sato, paragraph

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0065]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to adapt automatically to the addition and removal of both standardized and non-standardized nodes from a wireless communication system [Sato, paragraph 0013].

5. With respect to claims 83 and 108, Haas further teaches the respective at least one virtual nodes are configured to execute a self-configuration cycle to establish connectivity with a portion of the network cluster [col.5, Ins.36-63].

6. With respect to claim 85, Haas further teaches the respective at least one virtual nodes stores information regarding the identities and/or location of the at least one virtual nodes and other nodes of the network cluster [paragraphs 0032-0047].

7. With respect to claim 91, Haas further teaches the respective at least one virtual nodes communicate under a wireless transmission protocol [col.5, Ins.36-63].

8. With respect to claim 92, Haas further teaches the wireless transmission protocol employs at least one multiplexed communication channel such that each multiplexed channel employs a different transmission frequency [i.e. different channel such as CH1, CH2, CH3, CH4, fig.3].

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9. With respect to claim 93, Haas further teaches a first protocol channel is used for upstream communication and a second protocol channel is used for downstream communication [fig.3].

10. With respect to claims 106 and 126, Haas further teaches the network interface comprises a Bluetooth interface, a cellular communication interface, a satellite communication interface, an Internet interface, a power distribution network interface, and/or any interface configured to operatively communicate with any other public or private network [col.2, lns.16-59].

11. Claim 88 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Sato, as applied to claims 82 above, and further in view of Devine et al., U.S. Patent No. 6,606,708 (hereinafter Devine).

12. With respect to claim 88, Haas in view of Sato does not explicitly show on the respective at least one virtual nodes are configured with encryption capability to encrypt communications between the at least one virtual nodes and other nodes of the network cluster.

In a communication system, Devine suggests or discloses the respective at least one virtual nodes are configured with encryption capability to encrypt communications between the at least one virtual nodes and other nodes of the network cluster [fig.1].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by configuring at least one virtual nodes with encryption capability because this feature prevents unauthorized access unwanted sessions from remaining open in the event of client application failures or user neglect [Devine, col.4, Ins.7-9]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Devine in order to allow users to access the individual client applications via the backplane unit securely [Devine, col.3, Ins.15-17].

13. Claim 84, 95-97, and 114-117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Sato as applied to claims 82, 94 and 107 above, and further in view of Zintel et al., U.S. Patent No. 6,725,281 (hereinafter Zintel).

14. With respect to claim 84, Haas in view of Sato does not explicitly show the self-configuration cycle is executed upon initialization and/or upon a detected disruption in connectivity.

In a self-configuring wireless network, Zintel discloses the self-configuration cycle is executed upon initialization and/or upon a detected disruption in connectivity [col.31, Ins.50-61 and col.47, Ins.59-65].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Zintel by executing upon initialization and/or upon a detected disruption in connectivity

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because this feature supports automatic discovery, identification, and configuration [Zintel, col.47, Ins.66-67]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Zintel in order to allow an operating system to immediately begin using added devices or stop using removed devices without rebooting [Zintel, col.47, Ins.63-65].

15. With respect to claim 114, Haas in view of Sato does not explicitly show a communication interface configured to accommodate a plurality of communication protocols to facilitate communications between the self-configuring wireless communication network and at least one external network; an event naming module configured to identify pre-specified events; an event database configured to store information regarding the pre-specified events; an event management module configured to process and manage occurrences of the pre-specified events; and a communication management module configured to manage communication of the pre-specified events between the self-configuring wireless communication network and the at least one external network.

In a related art, Zintel discloses a virtual network operations entity associated with a self-configuring wireless communication network [see abstract and figs.1-4, 5, 22, and 27-28], said virtual network operating entity comprising:

- a communication interface configured to accommodate a plurality of communication protocols to facilitate communications between the self-



configuring wireless communication network and at least one external network [figs.27-28];

- an event naming module configured to identify pre-specified events [col.7, ln.30 - col.8, ln.33 and col.11, lns.6-67];
- an event database configured to store information regarding the pre-specified events [col.9, lns.4 - 59];
- an event management module configured to process and manage occurrences of the pre-specified events [fig.22 and col.10, lns.5-67]; and
- a communication management module configured to manage communication of the pre-specified events between the self-configuring wireless communication network and the at least one external network [figs.25-26].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Zintel by associating a virtual network operations entity with a self-configuring wireless communication network because this feature supports automatic discovery, identification, and configuration [Zintel, col.47, lns.66-67]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Zintel in order to allow an operating system to immediately begin using added devices or stop using removed devices without rebooting [Zintel, col.47, lns.63-65].

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16. With respect to claims 95 and 115, Haas in view of Sato does not explicitly show a configuration management module that specifies one or more of interface information, protocol information, and pre-specified services.

In a communication system, Zintel discloses a configuration management module that specifies one or more of interface information, protocol information, and pre-specified services [fig.22].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Zintel by adding a configuration management module because this feature supports automatic discovery, identification, and configuration [Zintel, col.47, Ins.66-67]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to allow an operating system to immediately begin using added devices or stop using removed devices without rebooting [Zintel, col.47, Ins.63-65].

17. With respect to claims 96 and 116, Haas in view of Sato does not explicitly show a security management module that manages security of communications between the self-configuring wireless communication network and at least one external network [col.49, Ins.4-23].

In a communication system, Zintel discloses a security management module that manages security of communications between the self-configuring wireless communication network and at least one external network [col.49, Ins.4-23].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Zintel by adding security management module because this feature prevents unauthorized access unwanted sessions from remaining open in the event of client application failures or user neglect [Devine, col.4, Ins.7-9]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to to allow users to access the individual client applications via the backplane unit securely [Devine, col.3, Ins.15-17].

18. With respect to claims 97 and 117, Haas in view of Sato an error and recovery management module that manages detection of, and recovery from, communication errors.

In a communication system, Zintel discloses an error and recovery management module that manages detection of, and recovery from, communication errors [col.35, ln.64 - col.36, ln.55].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Zintel by adding an error and recovery management module because this feature supports automatic discovery, identification, and configuration [Zintel, col.47, Ins.66-67]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to allow an operating system to immediately begin using

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added devices or stop using removed devices without rebooting [Zintel, col.47, Ins.63-65].

19. Claims 98-104 and 118-124 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Sato as applied to claims 94 and 107 above, and further in view of Devine et al., U.S. Patent No. 6,606,708 (hereinafter Devine).

20. With respect to claims 98 and 118, Haas in view of Sato does not explicitly show a replication redundancy management module that replicates attribute information regarding the self-configuration wireless communication network.

In a communication system, Devine discloses a replication redundancy management module that replicates attribute information regarding the self-configuration wireless communication network [col.23, Ins.4-64].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by adding a replication redundancy management module because this feature provides for redundancy and failover capability [Devine, col.23, Ins.11-12]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Devine in order to provide the communication link more reliable.

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21. With respect to claims 99 and 119, Haas in view of Sato does not explicitly show a billing module that tracks and bills usage of services provided by the self-configuring wireless communication network.

In a communication system, Devine discloses a billing module that tracks and bills usage of services provided by the self-configuring wireless communication network [col.5, lns.35-53].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by tracking and billing usage of service provided because this feature significantly simplifies the enterprise burden [Devine, col.2, lns.38-39]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Devine in order to improve customer service and lower costs [Devine, col.1, lns.33-60].

22. With respect to claims 100 and 120, Haas in view of Sato does not explicitly show an audit and logging module.

In a communication system, Devine discloses an audit and logging module [col.6, lns.38-67].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by adding an audit and logging module because this feature significantly simplifies the enterprise burden [Devine, col.2, lns.38-39]. It is for this reason that one

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of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Devine in order to improve customer service and lower costs [Devine, col.1, lns.33-60].

23. With respect to claims 101 and 121, Haas in view of Sato does not explicitly show a publication and subscription management module that manages the publication of the occurrences of the pre-specified events.

In a communication system, Devine discloses a publication and subscription management module that manages the publication of the occurrences of the pre-specified events [fig.6 and col.2, ln.56 - col.3, ln.64].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by adding a publication and subscription management module because this feature significantly simplifies the enterprise burden [Devine, col.2, lns.38-39]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Devine in order to improve customer service and lower costs [Devine, col.1, lns.33-60].

24. With respect to claims 102 and 122, Haas in view of Sato does not explicitly show communication interface facilitates remote monitoring of at least one node of the self-configuring wireless communication network.

In a communication system, Devine discloses communication interface facilitates remote monitoring of at least one node of the self-configuring wireless communication network [figs.2-4 and col.9, ln.42- col.10, ln.35].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by facilitating remote monitoring of at least one node of the self-configuring wireless communication network because this feature provides the ability to define and request a variety of reports [Devine, col.7, lns.27-40]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Devine in order to provide virtual data network alarms and performance reports [Devine, col.9, lns.50-59].

25. With respect to claims 103 and 123, Haas in view of Sato does not explicitly show the communication interface includes a customer interface.

In a communication system, Devine discloses the communication interface includes a customer interface.

[fig.4].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by including a customer interface because this feature significantly simplifies the enterprise burden [Devine, col.2, lns.38-39]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view

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of Devine in order to improve customer service and lower costs [Devine, col.1, Ins.33-60].

26. With respect to claims 104 and 124, Haas in view of Sato does not explicitly show the customer interface comprises a web browser interface, electronic mail interface, a customized Internet Protocol application interface, a telephone interface, a modem interface, and/or a paging device interface.

In a communication system, Devine discloses the customer interface comprises a web browser interface, electronic mail interface, a customized Internet Protocol application interface, a telephone interface, a modem interface, and/or a paging device interface [fig.3-4].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Sato, and further in view of Devine by including a web browser interface because this feature allows easy and convenient access from the user's perspective [Devine, col.2, Ins.60-65]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated to modify Meier in view of Devine in order to provide cross-platform software operability that is not dependent on a specific operating system [Devine, col.2, Ins.66-67].



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27. Claims 127-133 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas, United States Patent Number 6,304,556 (hereinafter Haas), in view of Johansson et al., United States Patent Number 6,480,505 (hereinafter Johansson).

28. With respect to claims 127 and 133, Haas teaches a method of configuring a self-configuring virtual node [figs.1&3-4 and see abstract], comprising:

- executing a self configuration cycle to initialize connectivity with an associated first wireless sub-network [i.e. network cluster **24, 26, 28, and/or 30**] [fig.3];
- executing the self-configuration cycle to establish connectivity with a second wireless sub-network if the initial connectivity with the first wireless sub-network fails or if connectivity with the first wireless sub-network has been subsequently disrupted [col.7, ln.1 through col.8, ln.65].

However, Haas does not explicitly show periodically polling over virtual nodes of the first wireless sub-network.

In a wireless method, Johansson discloses or suggests periodically polling over virtual nodes of the first wireless sub-network [col.7, lns.14-53].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Johansson by periodically polling over virtual nodes of the first wireless sub-network because this feature may be individually maintained for each node [Johansson, col.7, lns.40-42]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been

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motivated in order to replace the path with a new optimal one [Johansson, col.8, Ins.19-20].

29. With respect to claim 128, Haas further teaches the self configuring cycle is based on a set of transmission rules comprising connecting only with a sub-network having a virtual node, specifying a maximum number of node hops that can be used to reach a communication point, and/or connecting to a sub-network having the smallest number of node hops to the communication point [i.e. the zone radius is sufficiently large, col.7, Ins.36-67 and fig.3-4].

30. With respect to claims 129-130, Haas further teaches including information regarding the geographic location of the closest communication point [fig.1 and col.4, Ins.51-64].

31. With respect to claims 131-132, Haas further teaches programming the virtual node with routing information regarding other virtual nodes associated with the first and/or second wireless networks [figs.3-4].

32. Claim 134 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Johansson, as applied to claim 133 above, and further in view of Vimpari, U.S. Patent No. 6,577,671 (hereinafter Vimpari).

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33. With respect to claim 134, Haas in view of Johansson does not explicitly show the metric comprises 0 if the access to the designated virtual gate comprises a direct link.

In a communication method, Vimpari discloses the metric comprises 0 if the access to the designated virtual gate comprises a direct link [fig.5; col.3, Ins.62-64; col.3, Ins.18-25; and col.4, Ins.33-44].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Johansson, and further in view of Vimpari by the metric comprises 0 if the access to the designated virtual gate comprises a direct link because this feature enable a preading code handover technique [Vimpari, col.3, Ins.26-33]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to establish a fixed performance table or a dynamic performance table in real-time [Vimpari, col.3, Ins.19-25].

34. Claims 135-138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Johansson, as applied to claim 133 above, and further in view of Agrawal et al., U.S. Patent No. 6,075,777 (hereinafter Agrawal).

35. With respect to claims 135-136, Haas in view of Johansson does not explicitly show further steps comprising:

- receiving a request message for a path-seeking virtual node; and

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- transmitting a response to the path-seeking virtual node request message comprising availability as a path to the designated virtual gate and the metric.

In a communication method, Agrawal discloses the steps comprising:

- receiving a request message for a path-seeking virtual node [fig.6 and col.2, Ins.44-60]; and
- transmitting a response to the path-seeking virtual node request message comprising availability as a path to the designated virtual gate and the metric [col.3, ln.20 - col.4, ln.19 and col.7, Ins.39-52].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Johansson, and further in view of Agrawal by receiving a request message for a path-seeking virtual node and transmitting a response to the path-seeking virtual node because this feature can be used to evaluate the cost calculations for the available paths to determine the best path available [Agrawal, col.2, Ins.56-60]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to select the lowest cost (shortest) path for the new mobile if one exists below threshold value [Agrawal, col.2, Ins.53-55].

36. With respect to claims 137-138, Haas in view of Johansson does not explicitly show the path seeking virtual node is a configured virtual node searching for a more efficient path.

In a communication method, Agrawal discloses the path seeking virtual node is a configured virtual node searching for a more efficient path [col.3, ln.20 - col.4, ln.19; col.7, lns.39-52; and col.2, lns.13-60].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Haas in view of Johansson, and further in view of Agrawal by configuring virtual node searching for a more efficient path because this feature can be used to evaluate the cost calculations for the available paths to determine the best path available [Agrawal, col.2, lns.56-60]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to select the lowest cost (shortest) path for the new mobile if one exists below threshold value [Agrawal, col.2, lns.53-55].

### ***Response to Arguments***

37. Applicant's arguments with respect to claims 82-138 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

38. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi Tran  
Patent Examiner  
Art Unit 2151

January 21, 2007



**ZARNI MAUNG**  
**SUPERVISORY PATENT EXAMINER**